

Set	Items	Description
S1	765865	WIRELESS? OR CELLULAR? OR WIFI OR BLUETOOTH? OR 802.11 OR - 80211 OR 802()11 OR WAP OR WI()FI
S2	32534	(SEEK? OR SCAN? OR LOCAT? OR FIND? OR IDENTIF?) (3N) (CHANNE- L? OR FREQ OR FREQS OR FREQUENC? OR CHANNEL? OR BEACON? OR BA- SE()STATION? OR ACCESS()POINT?)
S3	507076	PDA OR PDAS OR PERSONAL()DIGITAL()ASSISTANT? OR CELLPHONE? OR (MOBILE OR CELL OR CELLULAR) (N) (PHONE? OR TELEPHON? OR DEV- ICE?) OR PALM OR PAGER? OR BLACKBERRY OR NOTEBOOK? OR HANDHEL- D? OR PALMTOP?
S4	3880662	BUTTON? OR SWITCH? OR TOGGLE? OR CONTROL? OR LEVER?
S5	69787	LOW()POWER? OR (SLEEP OR WAIT OR IDLE) (N) (MODE? OR STATE? - OR SYSTEM?) OR (POWER? OR BATTER?) (N) (SAVE? OR SAVING OR PRES- ERV? OR USE OR USAGE)
S6	7	S1 (10N) S2 (10N) S3 (10N) S5
S7	13	(S1 OR S3) (10N) S2 (10N) S5
S8	8	S7 NOT S6
S9	7	RD (unique items)
S10	3	S9 NOT PY>2001

File 696:DIALOG Telecom. Newsletters 1995-2004/Oct 27  
(c) 2004 The Dialog Corp.

File 275:Gale Group Computer DB(TM) 1983-2004/Oct 28  
(c) 2004 The Gale Group

File 674:Computer News Fulltext 1989-2004/Sep W1  
(c) 2004 IDG Communications

File 148:Gale Group Trade & Industry DB 1976-2004/Oct 15  
(c)2004 The Gale Group

File 144:Pascal 1973-2004/Oct W3  
(c) 2004 INIST/CNRS

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Set	Items	Description
S1	843689	WIRELESS? OR CELLULAR? OR WIFI OR BLUETOOTH? OR 802.11 OR - 80211 OR 802()11 OR WAP OR WI()FI
S2	61204	(SEEK? OR SCAN? OR LOCAT? OR FIND? OR IDENTIF?) (3N) (CHANNE- L? OR FREQ OR FREQS OR FREQUENC? OR CHANNEL? OR BEACON? OR BA- SE()STATION? OR ACCESS()POINT?)
S3	141134	PDA OR PDAS OR PERSONAL()DIGITAL()ASSISTANT? OR CELLPHONE? OR (MOBILE OR CELL OR CELLULAR) (N) (PHONE? OR TELEPHON? OR DEV- ICE?) OR PALM OR PAGER? OR BLACKBERRY OR NOTEBOOK? OR HANDHEL- D? OR PALMTOP?
S4	7316482	BUTTON? OR SWITCH? OR TOGGLE? OR CONTROL? OR LEVER?
S5	102512	LOW()POWER? OR (SLEEP OR WAIT OR IDLE) (N) (MODE? OR STATE? - OR SYSTEM?) OR (POWER? OR BATTER?) (N) (SAVE? OR SAVING OR PRES- ERV? OR USE OR USAGE)
S6	4	S1 AND S2 AND S3 AND S5
S7	52	(S1 OR S3) AND S2 AND S5
S8	48	S7 NOT S6
S9	30	RD (unique items)
S10	16	S9 NOT PY>2001
S11	16	S10 NOT PD>20010725
File	8: Ei Compendex(R)	1970-2004/Oct W3 (c) 2004 Elsevier Eng. Info. Inc.
File	35: Dissertation Abs Online	1861-2004/Sep (c) 2004 ProQuest Info&Learning
File	202: Info. Sci. & Tech. Abs.	1966-2004/Sep 09 (c) 2004 EBSCO Publishing
File	65: Inside Conferences	1993-2004/Oct W4 (c) 2004 BLDSC all rts. reserv.
File	2: INSPEC	1969-2004/Oct W3 (c) 2004 Institution of Electrical Engineers
File	94: JICST-EPlus	1985-2004/Sep W4 (c) 2004 Japan Science and Tech Corp(JST)
File	111: TGG Natl. Newspaper Index(SM)	1979-2004/Oct 26 (c) 2004 The Gale Group
File	233: Internet & Personal Comp. Abs.	1981-2003/Sep (c) 2003 EBSCO Pub.
File	6: NTIS	1964-2004/Oct W2 (c) 2004 NTIS, Intl Cpyrght All Rights Res
File	144: Pascal	1973-2004/Oct W3 (c) 2004 INIST/CNRS
File	34: SciSearch(R) Cited Ref Sci	1990-2004/Oct W4 (c) 2004 Inst for Sci Info
File	62: SPIN(R)	1975-2004/Aug W4 (c) 2004 American Institute of Physics
File	99: Wilson Appl. Sci & Tech Abs	1983-2004/Sep (c) 2004 The HW Wilson Co.
File	95: TEME-Technology & Management	1989-2004/Jun W1 (c) 2004 FIZ TECHNIK



11/5/2 (Item 2 from file: 8)  
DIALOG(R) File 8: Ei Compendex(R)  
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05665890 E.I. No: EIP00105355306

**Title: Cell search in W-CDMA**

Author: Wang, Yi-Pin Eric; Ottosson, Tony

Corporate Source: Ericsson Inc, Research Triangle Park, NC, USA

Source: IEEE Journal on Selected Areas in Communications v 18 n 8 Aug 2000. p 1470-1482

Publication Year: 2000

CODEN: ISACEM ISSN: 0733-8716

Language: English

Document Type: JA; (Journal Article) Treatment: T; (Theoretical)

Journal Announcement: 0011W3

**Abstract:** In a CDMA **cellular** system, the process of the mobile station searching for a cell and achieving code and time synchronization to its downlink scrambling code is referred to as cell search. Cell search is performed in three scenarios: initial cell search when a mobile station is switched on, **idle mode** search when inactive, and active mode search during a call. The latter two are also called target cell search. This paper presents algorithms and results for both initial and target cell search scenarios for the Wideband CDMA (W-CDMA) standard. In W-CDMA, the cell search itself is divided into five acquisition stages: slot synchronization, frame synchronization and scrambling code group **identification**, scrambling code **identification**, **frequency** acquisition, and cell **identification**. Initial cell search needs all five stages; while target cell search in general does not need the last two stages. A pipelined process of the first three stages that minimizes the average code and time acquisition time, while keeping the complexity at a reasonable level, is considered. The frequency error in initial cell search, which may be as large as 20 kHz, is taken care of by partial symbol despreading and noncoherent combining. Optimization of key system parameters such as the loading factors for Primary Synchronization Channel, Synchronization Channel, and Common Pilot Channel for achieving the smallest average code and time acquisition time is studied. After code and time synchronization (the first three stages), a maximum likelihood (ML)-based frequency acquisition method is used to bring down the frequency error to about 200 Hz. The gain of this method is more than 10 dB compared to an alternative scheme that obtains a frequency error estimate using differential detection. (Author abstract) 17 Refs.

**Descriptors:** **Cellular** radio systems; Code division multiple access; Bandwidth; Radio stations; Synchronization; Algorithms; Codes (symbols); Optimization; Data acquisition; Maximum likelihood estimation

**Identifiers:** Cell search; Frequency error estimation; Differential detection

**Classification Codes:**

716.3 (Radio Systems & Equipment); 716.1 (Information & Communication Theory); 723.2 (Data Processing); 921.5 (Optimization Techniques); 922.2 (Mathematical Statistics)

716 (Radar, Radio & TV Electronic Equipment); 723 (Computer Software); 921 (Applied Mathematics); 922 (Statistical Methods)

71 (ELECTRONICS & COMMUNICATIONS); 72 (COMPUTERS & DATA PROCESSING); 92 (ENGINEERING MATHEMATICS)

11/5/13 (Item 4 from file: 2)

DIALOG(R) File 2:INSPEC

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6306347 INSPEC Abstract Number: B1999-09-6250F-081

**Title: Comparison of cell search methods for asynchronous wideband CDMA cellular system**

Author(s): Nystrom, J.; Jamal, K.; Wang, Y.-P.E.; Esmailzadeh, R.

Author Affiliation: Ericsson Radio Syst. AB, Stockholm, Sweden

Conference Title: ICUPC '98. IEEE 1998 International Conference on Universal Personal Communications. Conference Proceedings (Cat. No.98TH8384) Part vol.2 p.783-7 vol.2

Publisher: IEEE, New York, NY, USA

Publication Date: 1998 Country of Publication: USA 2 vol. xxxiii+1377 pp.

ISBN: 0 7803 5106 1 Material Identity Number: XX-1998-03145

U.S. Copyright Clearance Center Code: 0 7803 5106 1/98/\$10:00

Conference Title: ICUPC '98. IEEE 1998 International Conference on Universal Personal Communications. Conference Proceedings

Conference Date: 5-9 Oct. 1998 Conference Location: Florence, Italy

Language: English Document Type: Conference Paper (PA)

Treatment: Theoretical (T)

**Abstract:** Cell search within a CDMA system consists of the tasks carried out by a mobile station in order to find, identify, and synchronize to a new cell. We distinguish between initial cell search, where the mobile station after power on searches for the cell to which it has the lowest path loss, and cell search carried out for maintaining connection to the network in **idle mode** and to find handover candidates in active mode. In this paper, we focus on initial cell search. In **cellular** systems employing asynchronous base stations, no common time reference exists. Consequently, **base stations** cannot be **identified** by their relative time offset. One way to facilitate cell search in an asynchronous system is to have each cell transmitting a unique downlink scrambling code. The disadvantage is that the mobile station must now search for a large number of different scrambling codes, which leads to significantly higher complexity compared to the case of a synchronized system. One approach to cell search in an asynchronous system has been proposed for ETSI WCDMA. In this case, each cell uses a unique downlink scrambling code of length 10 ms. The set of scrambling codes is divided into groups with a limited number of codes in each group. In addition, each cell periodically transmits two special orthogonal code words, known as the primary and secondary synchronization codes, PSC and SSC respectively. In ETSI WCDMA, as well as in our work, orthogonal Gold codes are used for the PSC and SSC codes. (2 Refs)

Subfile: B

**Descriptors:** **cellular** radio; code division multiple access; codes; synchronisation

**Identifiers:** cell search methods; asynchronous wideband CDMA **cellular** system; mobile station; initial cell search; **cellular** radio; asynchronous base stations; downlink scrambling code; ETSI WCDMA; secondary synchronization codes; primary synchronization codes; orthogonal Gold codes

**Class Codes:** B6250F (Mobile radio systems); B6150E (Multiple access communication)

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Set	Items	Description
S1	137302	WIRELESS OR WIFI OR BLUETOOTH OR CELLULAR? OR WI()FI OR WAP OR 802()11
S2	297543	SEEK OR SCAN OR SCANNING OR SCANS OR SCANNED
S3	44005	LOW()POWER? OR POWER() (SAVE? OR SAVING) OR SLEEP()MODE? OR LOWPOWER? OR WAIT()MODE? OR BATTERY() (PRESERV? OR SAVE OR SAVING)
S4	114370	PDA OR PDAS OR PERSONAL()DIGITAL()ASSISTANT? OR CELLPHONE? OR MOBILE() (TELEPHONE OR PHONE?) OR PAGER? OR PALM OR BLACKBERRY OR NOTEBOOK OR HANDHELD OR PALMTOP
S5	4771251	BUTTON? OR SWITCH? OR TOGGLE? OR CONTROL?
S6	3	S1 AND S2 AND S3 AND S4 AND S5
S7	7399	(S2 OR FIND OR LOCATE? OR LOCATING OR FINDS OR FINDING) (3N- ) (FREQ OR FREQUENCY OR SPECTRUM? OR ACCESS()POINT? OR BASE()STATION? OR HOTSPOT?)
S8	10	S3 AND S7 AND (S1 OR S4)
S9	9	S8 NOT S6
S10	8140	S3(5N) ((MODE? OR STATE? OR SYSTEM? OR STATUS) OR IDLE OR SLEEP)
S11	1	S4 AND S10 AND S7
S12	30546	(S2 OR FIND? OR LOCAT? OR SEARCH? OR SEEK? OR IDENTIF?) (3N- ) (CHANNEL? OR FREQUENC? OR BASE()STATION? OR ACCESS() (POINT? - OR NODE?) OR HOTSPOT?)
S13	199445	(POWER? OR BATTER? OR ENERGY?) (3N) (SAVE? OR PRESERV? OR LOW?) OR IDLE? OR SLEEP?
S14	737	S12 AND S13
S15	119	S14 AND (S1 OR S4)
S16	0	S15 AND IC=G06F-015?
S17	29	S15 AND IC=(G06F? OR H04L?)
S18	27	S17 NOT (S11 OR S9 OR S8 OR S6)
S19	27	IDPAT (sorted in duplicate/non-duplicate order)
S20	27	IDPAT (primary/non-duplicate records only)
S21	32837	(BEFORE? OR PRIOR? OR WITHOUT) (3N) (START? OR INITIAT? OR POWER() (UP OR ON))
S22	2	S12 AND S21 AND S4
S23	63	S15 AND MC=(W01-A06? OR W01-B05A? OR W02-K01? OR W02-K07?)
S24	41	S23 NOT (S17 OR S11 OR S9 OR S8 OR S6)
S25	32	S24 NOT AD>20010725
S26	9	S1 AND S2 AND S3 AND S4
S27	6	S26 NOT S6

File 347:JAPIO Nov 1976-2004/Jun(Updated 041004)

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File 350:Derwent WPIX 1963-2004/UD,UM &UP=200467

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25/5/29 (Item 29 from file: 350)  
DIALOG(R) File 350: Derwent WPIX  
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009746650 \*\*Image available\*\*  
WPI Acc No: 1994-026501/199403  
XRPX Acc No: N94-020583

Timing monitor for dual system cordless telephone - limits time spent on  
home base signal scan to less than paging repeat time on cellular  
network which is scanned longer than repeat time

Patent Assignee: MOTOROLA INC (MOTI )  
Inventor: LITTIG S G; SCHELLINGER M J  
Number of Countries: 011 Number of Patents: 008  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9400946	A1	19940106	WO 93US5152	A	19930601	199403 B
FR 2693067	A1	19931231	FR 937613	A	19930623	199405
CN 1085706	A	19940420	CN 93107438	A	19930623	199527
US 5442680	A	19950815	US 92903251	A	19920623	199538
			US 94296263	A	19940825	
IT 1262367	B	19960619	IT 93RM405	A	19930622	199707
CA 2115657	C	19980707	CA 2115657	A	19930601	199838
MX 200267	B	20010108	MX 933781	A	19930623	200222
CN 1033838	C	19970115	CN 93107438	A	19930623	200452

Priority Applications (No Type Date): US 92903251 A 19920623; US 94296263 A  
19940825

Cited Patents: US 4644347; US 4972455; US 4989230; US 5095529; US 5125103;  
US 5127042; US 5212684

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9400946	A1		46	H04M-011/00	
				Designated States (National):	BR CA DE GB JP KR
FR 2693067	A1			H04Q-007/02	
CN 1085706	A			H04B-007/26	
US 5442680	A	23		H04Q-007/38	Cont of application US 92903251
IT 1262367	B			H04M-000/00	
CA 2115657	C			H04B-001/40	
MX 200267	B			H04B-001/00	
CN 1033838	C			H04Q-007/20	

Abstract (Basic): WO 9400946 A

The dual system radiotelephone system includes a timing monitor to manage alternate control signal scanning. The telephone (101) is equipped to handle calls from either a **cellular** base station (103) or a cordless base station (115).

The telephone normally **scans** the **cellular** control **channels** in its **idle** state to detect a paging signal. These are typically repeated at 5 second intervals. The telephone periodically moves to scanning the home base control channel. The timing of these alternate scanning cycles is controlled to ensure that the telephone will always detect a **cellular** page signal.

USE/ADVANTAGE - Combined cordless and **cellular** system. Allows telephone to be used with both systems without risking loss of calls.

Dwg.1/13

Title Terms: TIME; MONITOR; DUAL; SYSTEM; CORD; TELEPHONE; LIMIT; TIME;  
SPENT; HOME; BASE; SIGNAL; SCAN; LESS; PAGE; REPEAT; TIME; **CELLULAR** ;  
NETWORK; SCAN; LONG; REPEAT; TIME

Derwent Class: W01; W02

International Patent Class (Main): H04B-001/00; H04B-001/40; H04B-007/26;  
H04M-000/00; H04M-011/00; H04Q-007/02; H04Q-007/20; H04Q-007/38

International Patent Class (Additional): H04M-001/00; H04Q-007/32

File Segment: EPI

25/5/11 (Item 11 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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013446454 \*\*Image available\*\*  
WPI Acc No: 2000-618397/200059  
Related WPI Acc No: 1999-404051; 2001-548942  
XRPX Acc No: N00-458236

**Radio telephone subscriber unit registration in analog cellular voice radio communication, by operating subscriber unit in sleep mode based on CDPD, after registering subscriber unit corresponding to selected SID**

Patent Assignee: BELL ATLANTIC NETWORK SERVICES (BELL-N)

Inventor: FARRIS R D; SEAZHOLTZ J W

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6128489	A	20001003	US 95566983	A	19951204	200059 B
			US 99276751	A	19990326	

Priority Applications (No Type Date): US 95566983 A 19951204; US 99276751 A 19990326

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6128489	A	30	H04Q-007/20	Div ex application US 95566983

Abstract (Basic): US 6128489 A

NOVELTY - A system **identification** number (SID) of **frequency** bands and service carriers, is generated. A list of SIDs is broadcast on a **cellular** digital packet data (CDPD) channel in a datastream. An SID is selected at radio phone subscriber unit, by comparing generated SID list and preset list. Subscriber unit registers with communication system, based on selected SID and operates in **sleep** mode in response to CDPD.

DETAILED DESCRIPTION - The data stream broadcasted in CDPD channel consists of an initial block with recognition data, temporary equipment identifier (TEI) data, system control data, communication information data, **channel identification** data and generated SID list. The generated SID list is included within the initial block and control data, and is immediately preceded by channel ID.

USE - For analog **cellular** voice radio communication system.

ADVANTAGE - Offers efficient selection from available service providers or carriers, that are most advantageous to a roaming subscriber station. Provides operating data to subscriber units, efficiently, without incurring limitations of analog **cellular** voice mode of operation, by broadcasting data in CDPD channel.

DESCRIPTION OF DRAWING(S) - The figure shows flow chart depicting sequence of operations of communication system using CDPD channel.

pp; 30 DwgNo 12/12

Title Terms: RADIO; TELEPHONE; SUBSCRIBER; UNIT; REGISTER; ANALOGUE;

**CELLULAR** ; VOICE; RADIO; COMMUNICATE; OPERATE; SUBSCRIBER; UNIT; **SLEEP** ; MODE; BASED; AFTER; REGISTER; SUBSCRIBER; UNIT; CORRESPOND; SELECT

Derwent Class: W01; W02

International Patent Class (Main): H04Q-007/20

International Patent Class (Additional): H04B-007/00; H04J-003/24;

H04M-003/00

File Segment: EPI

25/5/17 (Item 17 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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011971643 \*\*Image available\*\*  
WPI Acc No: 1998-388553/199833  
XRPX Acc No: N98-302960

Communication system having asynchronous channel frequency scanning  
e.g. for paging - has microprocessor connected to receiver, and both  
connected to frequency synthesiser to control channel reception, and  
cyclically offsets start of baud detect periods after completion of  
protocol cycle

Patent Assignee: MOTOROLA INC (MOTI )  
Inventor: ONG D N; WEISS K R; WILLARD D F  
Number of Countries: 023 Number of Patents: 004  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9830049	A1	19980709	WO 97SG74	A	19971217	199833 B
AU 9858940	A	19980731	AU 9858940	A	19971217	199849
SG 72725	A1	20000523	SG 97278	A	19970103	200033
US 6477381	B1	20021105	WO 97SG74	A	19971217	200276
			US 99331909	A	19990628	

Priority Applications (No Type Date): SG 97278 A 19970103

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9830049	A1	E	20	H04Q-007/18	
Designated States (National): AU CN KR RU US					
Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
AU 9858940	A				Based on patent WO 9830049
SG 72725	A1			H04Q-007/18	
US 6477381	B1			H04B-001/18	Based on patent WO 9830049

Abstract (Basic): WO 9830049 A

The communication device has a receiver for detecting coded messages transmitted on one or more channels. A processing device communicates with the receiver and processes the messages. a channel control device is coupled to the processing device and the receiver, and controls the reception of the channels. A memory stores a group of channel frequencies and is coupled to the processing device. The processing device controls the receiver to scan at least some of the channels during baud detect periods of a protocol cycle associated with at least one of the channels. The processing device cyclically offsets a start of the baud detect periods after completion of a protocol cycle. The offset period is relative to a start time of a sample interval length.

USE - E.g. for selective call receiver or pager .

ADVANTAGE - Allows for sleep period duration to be increased for each sampling interval to assist in reducing battery drain.

Allows for detecting mandatory frames of channel stored in code-plug within y cycles.

Dwg.1/4

Title Terms: COMMUNICATE; SYSTEM; ASYNCHRONOUS; CHANNEL; FREQUENCY; SCAN; PAGE; MICROPROCESSOR; CONNECT; RECEIVE; CONNECT; FREQUENCY; SYNTHESISER; CONTROL; CHANNEL; RECEPTION; CYCLIC; OFFSET; START; BAUD; DETECT; PERIOD; AFTER; COMPLETE; PROTOCOL; CYCLE


Derwent Class: U25; W01; W02; W05

International Patent Class (Main): H04B-001/18; H04Q-007/18

International Patent Class (Additional): H04Q-007/00; H04Q-007/38

File Segment: EPI



20/5/13 (Item 13 from file: 350)   
DIALOG(R)File 350:Derwent WPIX  
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013439895 \*\*Image available\*\*  
WPI Acc No: 2000-611838/200058  
Related WPI Acc No: 2001-626044  
XRPX Acc No: N00-453076

**Power consumption minimizing method in mobile terminal, involves making mobile terminal to go to sleep condition, if frame control channel does not include medium access control identification**

Patent Assignee: TELEFONAKTIEBOLAGET ERICSSON L M (TELF )  
Inventor: ALMEHAG L; EBENHARD J; HANSSON U; LINDSKOG J; MALMGREN G; WENGER F

Number of Countries: 093 Number of Patents: 007

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200060811	A1	20001012	WO 2000SE592	A	20000328	200058 B
AU 200041595	A	20001023	AU 200041595	A	20000328	200107
EP 1169818	A1	20020109	EP 2000921260	A	20000328	200205
			WO 2000SE592	A	20000328	
CN 1354939	A	20020619	CN 2000808573	A	20000328	200263
JP 2002541731	W	20021203	JP 2000610183	A	20000328	200309
			WO 2000SE592	A	20000328	
US 6622251	B1	20030916	US 99287110	A	19990407	200362
			US 2000528101	A	20000317	
AU 771981	B2	20040408	AU 200041595	A	20000328	200456

Priority Applications (No Type Date): US 2000528101 A 20000317; US 99287110 A 19990407

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
WO 200060811	A1	E	50 H04L-012/28	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

AU 200041595 A H04L-012/28 Based on patent WO 200060811

EP 1169818 A1 E H04L-012/28 Based on patent WO 200060811

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

CN 1354939 A H04L-012/28

JP 2002541731 W 61 H04L-012/28 Based on patent WO 200060811

US 6622251 B1 G06E-001/26 CIP of application US 99287110

AU 771981 B2 H04L-012/28 Previous Publ. patent AU 200041595  
Based on patent WO 200060811

Abstract (Basic): WO 200060811 A1

NOVELTY - The wake-up information is **located** in frame control **channel** (FCCH) of medium access control (MAC) frame sent by access point in network. If FCCH does not include wake-up information having MAC identification (MAC-ID) that is same as MAC-ID of mobile terminal, then mobile terminal goes to **sleep** condition.

USE - For minimizing power consumption in mobile terminal in **wireless** local area network (LAN).

ADVANTAGE - Reduces power consumption in mobile terminal effectively by turning it to **sleep** mode, when frame control channel does not include wake-up information.

DESCRIPTION OF DRAWING(S) - The figure shows exemplary MAC frame.  
pp; 50 DwgNo 8/19

Title Terms: POWER; CONSUME; MINIMISE; METHOD; MOBILE; TERMINAL; MOBILE; TERMINAL; **SLEEP**; CONDITION; FRAME; CONTROL; CHANNEL; MEDIUM; ACCESS; CONTROL; IDENTIFY

Derwent Class: W01

International Patent Class (Main): G06E-001/26; **H04L-012/28**

International Patent Class (Additional): G06E-001/32; H04B-007/26;

H04Q-007/00; H04Q-007/34  
File Segment: EPI

20/5/3 (Item 3 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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016391792 \*\*Image available\*\*  
WPI Acc No: 2004-549701/200453  
XRPX Acc No: N04-434989

**Communication apparatus e.g. base station apparatus in wireless local area network, identifies communication channel in idle state and modulates carrier wave of frequency band corresponding to identified channel**

Patent Assignee: SONY CORP (SONY )  
Number of Countries: 001 Number of Patents: 001  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2004221812	A	20040805	JP 20035315	A	20030114	200453 B

Priority Applications (No Type Date): JP 20035315 A 20030114

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 2004221812	A	17	H04J-001/16	

Abstract (Basic): JP 2004221812 A

NOVELTY - A confirmation unit **identifies** communication channel in **idle** state among several channels corresponding to several frequency bands. Transmission section (36) modulates carrier wave of **frequency** band corresponding to **identified channel**, according to transmission data. A converter receives modulated carrier wave among other waves of different frequency bands and converts into base band signal which is to be demodulated.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for communication method.

USE - Communication apparatus e.g. base station apparatus performing **wireless** local area network (LAN) communication using carrier waves of different frequency bands.

ADVANTAGE - Allows using the base station apparatus and **wireless** LAN card for assembly of **wireless** LAN without considering the usage environment, thus improves the communication of audio or video data without any interruption.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the base station apparatus. (Drawing includes non-English language text).

modem (35)  
transmission section (36)  
amplifiers (37,42)  
mixer (41)  
receiver section (45)  
pp; 17 DwgNo 3/9

Title Terms: COMMUNICATE; APPARATUS; BASE; STATION; APPARATUS; **WIRELESS** ;  
LOCAL; AREA; NETWORK; IDENTIFY; COMMUNICATE; CHANNEL; **IDLE** ; STATE;  
MODULATE; CARRY; WAVE; FREQUENCY; BAND; CORRESPOND; IDENTIFY; CHANNEL

Derwent Class: W01; W02

International Patent Class (Main): H04J-001/16

International Patent Class (Additional): H04J-011/00; **H04L-012/28** ;

H04Q-007/38

File Segment: EPI

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